CSC 202

UML

CLASS DIAGRAMS

Visual Notation - Declaration

Class Object

attribute1

attribute2

class

method1()

method2()

attribute1

attribute2

object

method1()

method2()

Visual Notation – Relationships

Dependency (A depends on B)

A

BA

Association (Unidirectional (Arrow), Bidirectional)

A

BA

A

BA

Aggregation (B aggregates A => A is part of B with independent lifetimes)

A

BA

Composition (B composed of A => B controls lifetime of A)

A

BA

Multiplicity and Naming

A

BA

1

1

teaches

1 One and only one

\* Any number 0 to infinity

0..1 0 or 1

n..m Any number from n to m inclusive

1..\* Any positive integer

Visual Representation - Inheritance

Single

A

BA

CA

Multiple

A

BA

CA

STATE DIAGRAMS

State

NewState

transition [condition]

State Machine

Login

PW

K

E

O

INTERACTION/COLLABORATION/SEQUENCE DIAGRAMS

Interaction Diagram

A

B

C

1: MessageX

2: MessageY

3: MessageZ

Sequence Diagram

A

B

C

MessageX

MessageY

MessageZ

MessageT

USE-CASE DIAGRAMS

Order

Delivery

DB

Customer

UPS

|  |  |
| --- | --- |
| Use-case | Name |
| Actors | DB, Customer, UPS |
| Description | Customer Order, … |
| Stimulus | Order, … |
| Response | Payment, … |

ACTIVITY DIAGRAMS

PHYSICAL COMPONENT/DEPLOYMENT DIAGRAMS